From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

United States Patent and Trademark

Office (Box PCT)

Washington D.C. 20231

•	United States of America
Date of mailing:	_
29 May 1995 (29.05.95)	in its capacity as elected Office
International application No.:	Applicant's or agent's file reference:
PCT/GB94/02101	PCT 199 1 IRH
International filing date:	Priority date:
27 September 1994 (27.09.94)	13 October 1993 (13.10.93)
Applicant: CALLAGHAN, Francis, John et al	
*3	-
The designated Office is hereby notified of its election made	•
X in the demand filed with the International Preliminary	Examining Authority on:
28 April 1995 (2	28.04.95)
in a notice effecting later election filed with the Interna	ntional Bureau and
in a notice effecting later election filed with the lifterna	ational Bureau on:
	-
2. The election X was	_ · ·
	-
was not	1
made before the expiration of 19 months from the priority de Rule 32.2(b).	ate or, where Rule 32 applies, within the time limit under
•	·
-	

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer:

J. Leitao

Telephone No.: (41-22) 730.91.11

From the INTERNATIONAL BUREAU

To:

NOTIFICATION CONCERNING DOCUMENT TRANSMITTED

PCT

United States Patent and Trademark Office (Box PCT) Washington D.C. 20231 United States of America

Date of mailing (day/month/year)

29 November 1995 (29.11.95)

in its capacity as elected Office

International application No.

PCT/GB94/02101

International filing date (day/month/year)
27 September 1994 (27.09.94)

Applicant

DATAQUILL LIMITED et al

The International Bureau transmits herewith the following documents and number thereof:

copy of the international preliminary examination report and annexes (Article 36(3)(a))

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

L. Panakal

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PATENT COOPERATION TREATY



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT 199 1	FOR FURTHER ACTION		ion of Transmittal of International Examination Report (Form PCT/IPEA/416)
International application No.	International filing date (day)	(month/year)	Priority date (day/month/year)
PCT/GB 94/ 02101	27/09/1994		13/10/1993
International Patent Classification (IPC) or			
	G06K7/10		
Applicant			
DATAQUILL LIMITED et al.			
This international preliminary examples Authority and is transmitted to the	mination report has been prepare e applicant according to Article	red by this Interr 36.	national Preliminary Examining
2. This REPORT consists of a tota	l of sheets, including	ng this cover shee	et.
been amended and are the ba (see Rule 70.16 and Section	asis for this report and/or sheet 607 of the Administrative Instru	s containing recti	on, claims and/or drawings which have fications made before this Authority PCT).
These annexes consists of a total of	of sheets.		
3. This report contains indications as	nd corresponding pages relating	to the following	items:
IX Basis of the report			
II Priority			·
III Non-establishment of	opinion with regard to novelty,	inventive step an	id industrial applicability
IV 🔀 Lack of unity of inven	tion	•	
V Reasoned statement un citations and explanati	nder Article 35(2) with regard to ons supporting such statement	o novelty, inventi	ive step or industrial applicability;
VI Certain documents cit	ed		
VII Certain defects in the	international application		
	on the international application		
	••		
·	•		
			•
L			
Date of submission of the demand	Da	te of completion	of this report
28/04/1995	`. 	2 8.	11. 95
Name and mailing address of the IPEA/	Au	thorized officer	1
European Patent Office		M	Coos
D-80298 Munich Tel. (+49-89) 2399-0, Tx: 52: Fax: (+49-89) 2399-4465	- ·	ephone No.	1. Grob
Form PCT/IPEA/409 (cover sheet) (Januar	ry 1994) (31/05/1		

Intern. application No.
PCT/GB94/02101

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

I. Basis of the report	
1. This report has been drawn up on the basis of (Replacement should be office in response to an invitation under Article 14 are reference and annexed to the report since they do not contain amendment	erred to in this report as "originally filed" and are
[] the international application as originally filed.	
[x] the description, pages 1-28	, as originally filed,
pages	
	, filed with the letter of,
	, filed with the letter of,
[x] the claims, Nos.	, as originally filed,
Nos	, as amended under Article 19,
Nos	filed with the demand,
Nos. 1-24	, filed with the letter of 13.11.95,
	, filed with the letter of,
[x] the drawings, sheets/fig $1/11-11/11$, as originally filed,
sheets/fig	
	, filed with the letter of
sheets/fig	, filed with the letter of
The state of the concellation of	
2. The amendments have resulted in the cancellation of:	
[] the description, pages	
[] the claims, Nos.	
[] the drawings, sheets/fig	•
3. [] This report has been established as if (some of) the a	mendments had not been made, since they have been
considered to go beyond the disclosure as filed (Rule	70.2(0)).
4. Additional observations, if necessary:	
•	

IV.	Lack	٥f	unity	of	invention
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1.	In	response to the invitation to restrict or pay additional fees the applicant has:
	[<pre> restricted the claims. paid additional fees. paid additional fees under protest. neither restricted nor paid additional fees.</pre>
2.	[*	This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

- 3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
 - [] complied with.
 - [x] not complied with for the following reasons:
 - The present application comprises two independent ap-1. paratus claims which are not linked by a single general inventive concept (Rule 13.1 PCT). The first group of inventions comprises the independent claim 1 (and its dependent claims) which is directed to a data entry system in which the controller in the hand-held unit is responsive to a command to cause down-loading of information from a remote processing centre for updating information stored for selectable items in the hand-held unit. The second group of inventions comprises the independent claim 3 (and its dependent claims) which is directed to a data entry system comprising a hand-held unit which has a telecommunications line interface integral to said hand-held unit and directly connects said unit to the telecommunications network.
 - 1.1 Although the common link between these two groups corresponds to the features set out on lines 1-13 of claim 3 (essentially the features of the originally filed claim 1), this link is not new in view of the data entry

Intern. application No.
PCT/GB94/02101

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

system in D1,D4 or D7 (see section V of this report). For example, the hand-held unit 10, the reading sensor 14, the display screen 20, and the telecommunications interface 116 in claim 3 can be read onto the hand-held device 1, the bar code reader 7, the display 5 and the audio optical coupling arrangement 8,9 in D1. Furthermore, in D1 (cf page 5, line 25) there is a microprocessor which corresponds to the controller in claim 3. Moreover, clearly the hand-held unit in D1 must comprise a memory for storing the items chosen by the user in addition to the memory chip on the card.

- 1.2 Hence, there appears to be no "special technical features" in the sense of Rule 13.2 PCT which might justify a technical relationship between the two groups and therefore the requirement of Rule 13.1 PCT is not met.
- 4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

[x	:]	all	parts.	
ſ	1	the	narts relating to claims Nos.	

V. Reasoned statement under Article 35(2 citations and explanations supporting) with regard to novelty, inventive step and industr s such statement	ial applicability;
1. STATEMENT		,
Novelty (N)	Claims 1-24	
Inventive Step (IS)	Claims 1-24	
Industrial Applicability (IA)	Claims 1-24	

2. CITATIONS AND EXPLANATIONS

The following documents are cited in this report:

D1 = WO-A-9 100 574

D4 = US-A-4 916 441

D7 = WO-A-8 707 106

2. D1 discloses a data entry system comprising a hand-held unit 1 (cf Fig 1A) which comprises a keyboard 4, a display 5, an infrared transceiver 6 for communicating with the unit 11, an optical bar code reader 7 and an audio coupling arrangements 8,9 for interfacing with a telephone (cf page 5, lines 24-33). A card 2 comprising a memory chip can be inserted into the hand-held device and includes information concerning various items (fight times etc.) which the user may select by scanning the bar code printed on a document or brochure (cf page 2, lines 18-19). Once the choice of items has been made, the information (which is also displayed on the display (cf page 5, lines 31-33)) is sent via the audio coupling arrangement 8,9 and the telephone to a processing cen-

tre. The processing centre processes the items and sends a confirmation or suggests an alternative (cf page 2, lines 19-26).

- 3. D7 also discloses a data entry system comprising a hand-held device 20 (cf Figs 1 and 4) and a base unit 76 (cf Figs 5 and 7). The hand-held unit comprises a bar code reader 52 which consists of a CCD (cf last paragraph on page 11), a RF modem 66 for communicating with the base unit 76, rechargeable batteries 75, a key-pad 56, a display 54, status lights 58 as well as a control processor and memory 64. The base unit 76 comprises a RF modem 79 for bidirectional communication with the hand-held device, a charging circuit 78 for recharging the batteries in the device 20, and a DOV modem 77 for communicating over a telephone line with a central computer system.
- D4 discloses a data entry system comprising a hand-held pocket terminal 22 (cf Fig 5) comprising a display 22d (which can also be used as a keypad (cf col 5, lines 34-50)), a bar code reader 22c, a microprocessor, a battery 22h and a RF modem 22a for communicating with a base unit 31-33. In operation (cf col 10, line 35 to col 12, line 46) a nurse signs onto the system and patient data associated with the patients assigned to the nurse are loaded into the hand-held pocket terminal 22 (cf col 10, lines 39-45). The data loaded into the pocket terminal 22 is available at all times and is automatically updated with each base station 32 or central data base interaction (cf col 11, lines 5-12). For example (cf col 11, lines 40-47) when the patient's bar code is read, the base station 32 automatically sends a request to the central fileserver 24 (remote processing centre) to update the nurse's portable data base with any new information since the last update. In the system in D4, the selectable items are the patients which are user select-

able by means of the scanner 22c for reading the patients' bar codes. The information relating to these selected items or patients is displayed on the pocket terminal display 22d (cf col 12, lines 1-11).

4.1 In an alternative embodiment in D4 (cf col 13, lines 28-37) the pocket terminal can be used with a modem to up/down-load the patient's data to/from the hospital system (remote processing system) over the telephone in the patient's home. In view of the operation of the pocket terminal in paragraph 2 above, the process of up/down-loading patients' data would also involve updating the information relating to the patients.

Re: Claim 1

- 5. D1 and D7 do not disclose or suggest down-loading information from a remote processing centre for updating information previously stored in the rewritable storage for selectable items, where the selectable items are user selectable by means of the reading sensor 14.
- Although D4 does down-load information for updating the 5.1 patient's data stored in the hand-held unit, the updating process in D4 is initiated by scanning the patient's data or bar code. It is then the base station 32 which sends a request to the central file server 24 (remote processing centre) to update the portable hand-held unit with any new information relating to that patient (cf col 11, lines 40-47). In other words, in response to the selection of an item (patient) by means of sensing the data corresponding thereto (patient's bar code), the selected item is updated. In claim 1, the sensing of data merely causes the selection of an item within the hand-held unit (cf claim 1: page 29, line 9). The input of a command is necessary to initiate updating of the information previously stored for selectable items (cf

claim 1: page 29, lines 16-18). None of the other prior art documents suggests modifying the system in D4 to additionally require the input of a command for initiating the updating of the selectable items.

5.2 Consequently, the subject-matter of claim 1 (and its dependent claims) meets the requirements of Articles 33(2) and 33(3) PCT.

Re: Claim 3

- 6. None of the prior art documents suggests having a telecommunications line interface integral to the hand-held unit which directly connects the unit to the telecommunications network.
- 6.1 Consequently, the subject-matter of claim 3 (and its dependent claims) meets the requirements of Articles 33(2) and 33(3) PCT.

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

- The documents D1,D4,D7 have not been identified in the description nor has the relevant background art disclosed therein been discussed. The requirements of Rule 5.1(a)(ii) PCT are, thus, not fulfilled.
- 1.1 The description (cf statement of the invention bridging pages 2,3 and the text on pages 3-8 and possibly pages 25-28) needs to be brought into conformity with the claims. For example, the text at lines 7-12 on page 6 refers to a feature present in claim 1 which is not a "preferable" feature. In addition, it should be noted that although claim 1 covers all of the embodiments disclosed in the application, claim 3 covers only the embodiments shown in Figures 9-12.
- 1.2 Reference signs in parentheses should have been inserted in the claims to increase their intelligibility, Rule 6.2(b) PCT.



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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER ACTION	see Notification of (Form PCT/ISA/2	f Transmittal of International Search Report 220) as well as, where applicable, item 5 below.
PCT 199 1 IRH	International filing date(date)	v/month/vear)	(Earliest) Priority Date (day/month/year)
International application No.		,,,,,	
PCT/GB94/02101	27/09/94		13/10/93
Applicant			
DATAQUILL LIMITED et al.			
DATAQUILL LIMITED et al.			
This international search report has bee according to Article 18. A copy is being	en prepared by this Internation g transmitted to the Internation	aal Searching Auth nal Bureau.	ority and is transmitted to the applicant
This international search report consist	s of a total of3 opy of each prior art documen	sheets. t cited in this repo	rt
1. Certain claims were found uns	earchable (see Box I).		
2. Unity of invention is lacking (see Box II).		
3. The international application international search was carri	contains disclosure of a nucleo ed out on the basis of the seq	otide and/or amino uence listing	acid sequence listing and the
	led with the international appl		ornational application
	urnished by the applicant sepa		he effect that it did not include
1	matter going beyond t	he disclosure in the	e international application as filed.
_ 1	ranscribed by this Authority		
4. With regard to the title, X	he text is approved as submitt	ed by the applican	L
	he text has been established by		•
5. With regard to the abstract,	the text is approved as submitt	ted by the applican	IL
	the text has been established, a	ecording to Rule	38.2(b), by this Authority as it appears in
	Box III. The applicant may, w search report, submit commen	rithin one month fi	om the date of mailing of this international
6. The figure of the drawings to be	oublished with the abstract is:		
	as suggested by the applicant.		None of the figures.
	because the applicant failed to		
	because this figure better char	acterizes the inven	tion.

A. CLASSIFICATION OF SUBJECT MATTER IPC 6 G06K7/10 G06K17/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

Category °	ENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	WO,A,91 00574 (PARIENTI, RAOUL) 10 January 1991 see claims 1-7; figures 1,2	1,2,14, 15,19 3,4, 11-13, 17,18, 21-28
Y	WO,A,89 04016 (ZENGRANGE LIMITED) 5 May 1989 see page 11, paragraph 3 - page 12, paragraph 1; figures 2,3	3,4
Y	GB,A,2 202 664 (GARY DOUGLAS ROBB) 28 September 1988 cited in the application see the whole document	11,12,26

Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.
 Special categories of cited documents: 'A' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the international filing date 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'O' document referring to an oral disclosure, use, exhibition or other means 'P' document published prior to the international filing date but later than the priority date claimed 	 "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of the international search 9 January 1995	Date of mailing of the international search report 2 0, 01, 95
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2	Authorized officer
NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016	Chiarizia, S

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WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6:

G06K 7/10, 17/00

(11) International Publication Number:

WO 95/10818

A1

(43) International Publication Date:

20 April 1995 (20.04.95)

(21) International Application Number:

PCT/GB94/02101

(22) International Filing Date:

27 September 1994 (27.09.94)

(30) Priority Data:

9321133.2

13 October 1993 (13.10.93) GB

(71) Applicant (for all designated States except US): DATAQUILL LIMITED [-/-]; P.O. Box 3151, Skelton Buildings, Road

Town, Tortola (VG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): CALLAGHAN, Francis, John [GB/-]; Eulah, Mont Couchon, St. Helier, Jersey (GB). DORAN, Paul, Marshall [GB/-]; Haut-Clair, Bellozane Road, St. Helier, Jersey (GB). ROBB, Gary, Douglas [CA/-]; 20 Close Nicole, Mont Les Vaux, St. Brelade, Jersey (GB).

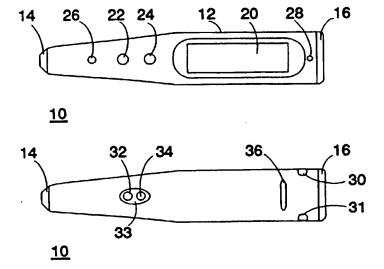
(74) Agent: HARRIS, Ian, Richard; D Young & Co., 21 New Fetter Lane, London EC4A 1DA (GB).

(81) Designated States: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, MW, SD, SZ).

Published

With international search report.

(54) Title: DATA ENTRY SYSTEMS



(57) Abstract

A data entry system includes a hand held data entry unit having a reading sensor for sensing commands and/or data, rewritable storage for storing information relating to selectable items, a controller (a microprocessor or other processing circuitry) and a display screen for displaying a user readable representation of the commands and/or stored information for a selected item, and a telecommunication interface for the telephonic transmission of information relating to a selected item or items the storage to a remote processing centre and for the telephonic transmission of information relating to selectable items from the remote processing centre to the storage. Preferably a telecommunications interface is provided in the hand held unit for cellular or other wireless telephony system. The hand held unit can be configured to combine the data entry functions with those of audio telephony.

INTE ATIONAL SEARCH REPORT

Information on patent family members

I ional Application No
PCT/GB 94/02101

Patent document cited in search report	Publication date	Patent memi		Publication date
WO-A-9100574	10-01-91	FR-A- AT-T- AU-A- CA-A- DE-D- EP-A- US-A-	2648932 113130 5933090 2035462 69013470 0431138 5189287	28-12-90 15-11-94 17-01-91 24-12-90 24-11-94 12-06-91 23-02-93
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INTERNATIONAL SEARCH REPORT



C.(Continua	tion) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	US,A,4 916 441 (GOMBRICH) 10 April 1990 see column 5, line 34 - line 50; figure 5	13 1
1	US,A,5 023 438 (WAKATSUKI ET AL.) 11 June 1991 see abstract; figure 7	17,18
(.	EP,A,O 094 571 (MSI DATA CORPORATION) 23 November 1983 cited in the application see page 12, line 8 - line 11; figures 1-3	21-25, 27,28
X	WO,A,87 07106 (CLINICOM INCORPORATED) 19 November 1987 see page 11, line 24 - page 13, line 19; figures 4,7	1,3-5, 10,16
·		

Internal

Application No

PCT/GB 94/02101

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO-A-9100574	10-01-91	FR-A- AT-T- AU-A- CA-A- DE-D- EP-A- US-A-	2648932 113130 5933090 2035462 69013470 0431138 5189287	28-12-90 15-11-94 17-01-91 24-12-90 24-11-94 12-06-91 23-02-93
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III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)					
Category *	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No			
Υ	US, A, 4588881 (W PEJAS ET AL) 13 May 1986, see the whole document うつった (19のチーラのかんデ/)・タア	1-36			
Y	US, A, 4345147 (R L AARON AND E F MURPHY) 17 August 1982, see the whole document GOGKIFIOO GO7F7/028	1-36			
Υ	US, A, 4387297 (J SWARTZ ET AL) 7 June 1983, see the whole document	1-36			
Y	US, A, 4423319 (H JACOBSEN) 27 December 1983, see the whole document	1-36			
A	US, A, 4465926 (S APITZ AND R NONNENMANN) 14 August 1984, see the whole document	1-36			
A	US, A, 4101072 (D J WEAVER ET AL) 18 July 1978, see the whole document	1-36			
A	US, A, 4373133 (N CLYNE ET AL) 8 February 1983, see the whole document	1-36			
A	US, A, 4193540 (R DOUGADOS ET AL) 18 March 1980, see the whole document	1-36			
A	WO, AI, 85/00680 (IMPULSE COMPUTER SYSTEMS INC) 14 February 1985, see abstract	1-36			
Y	IBM TECHNICAL DISCLOSURE BULLETIN, Vol. 19, No. 5, October 1976 (NEW YORK, USA) P C FUROIS, L F GIACCONE: "PORTABLE INVENTORY SYSTEM AND METHOD", see page 1828	1-36			

ANNEX TO THE INTERNATIONAL SEARCH REPORT ON INTERNATIONAL PATENT APPLICATION NO.

PCT/GB 88/00907

SA

24936

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office FIP file on 12/01/89. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

	Patent document cited in search report	Publication date		(amily	Publication date
EP-A-	- 0151533	17/08/85	GB-A-B- AU-D-	2153334 38139/85	21/08/85 08/08/85
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			DE-A-C- US-A-	3153253 4593186	25/04/85 03/06/86
US-A-	4423319	27/12/83	GB-A-B- SE-A-C- SE-A-	2068536 419908 8000402	12/08/81 31/08/81 19/07/81
US-A-	4465926	14/08/84	DE-A-C- JP-A-	3109286 57209571	23/09/82 22/12/82
JS-A-	4101072	18/07/78	DE-A-C- JP-A-	2747450 54031249	27/04/78 08/03/79
IS-A-	4373133	08/02/83	G8-A-8-	2068132	05/08/81
IS-A-	4193540	18/03/80	BE-A- NL-A- FR-A-B- DE-A-C- GB-A- CH-A-	1591561	15/10/78 27/12/78 19/01/79 25/01/79 01/07/81 30/09/81

ANNEX TO THE INTERNATIONAL SEARCH REPORT ON INTERNATIONAL PATENT APPLICATION NO.

PCT/GB 88/00907

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office FDP file on 12/01/89. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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